

432-1446

4/11/2011

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**U.S. ENVIRONMENTAL PROTECTION AGENCY**

Office of Pesticide Programs  
Registration Division (7504P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:  
**432-1446**

Date of Issuance:  
**APR 11 2011**

NOTICE OF PESTICIDE:  
XX Registration  
XX Reregistration  
(under FIFRA, as amended)

Terms of Issuance:  
**Unconditional**

Name of Pesticide Product:  
**Tartan™ Fungicide**

**Name and Address of Registrant (include ZIP Code):**

Richard M. Gorrell  
Bayer Environmental Science  
2 T.W. Alexander Drive  
Research Triangle Park, NC 27709

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

EPA received a label amendment request submitted by email on April 7, 2011. EPA grants this request under the authority of section 3(c)(5) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended. With this accepted labeling, all requirements set forth in the Reregistration Eligibility Decision for **triadimefon** have been satisfied. Therefore, EPA reregisters the product listed above. This action is taken under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Submit one (1) copy of final printed labeling. Amended labeling will supersede all previously accepted labels. A copy of your label stamped "Accepted" is enclosed for your records. Products shipped after 12 months from the date of this Notice or the next printing of your label, whichever occurs first, must bear the new revised label.

If you have any questions or comments regarding this letter, please contact Heather Garvie at (703) 308-0034 or via e-mail at [garvie.heather@epa.gov](mailto:garvie.heather@epa.gov).

Signature of Approving Official:

Tony Kish  
Product Manager (Team 22)  
Fungicide Branch  
Registration Division

Date:

**APR 11 2011**

2018

# Tartan™ Fungicide

For control of certain foliar, stem, and root diseases of turfgrass including golf courses, sod farms and sports fields.

**Active Ingredient:**

Trifloxystrobin (CAS No. 141517-21-7)*.....	4.17%
Triadimefon (CAS No. 43121-43-3)*.....	20.86%

**Other Ingredients:**..... 74.97%

**Total:**..... 100.00%

\*Equivalent to 2 pounds of triadimefon and 0.4 pounds of trifloxystrobin per gallon

**EPA Reg. No. 432-1446**

**EPA Est. No.**

## STOP - READ THE LABEL BEFORE USE KEEP OUT OF REACH OF CHILDREN CAUTION

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577  
For PRODUCT USE Information Call 1-800-331-2867

### FIRST AID

<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
In case of emergency call toll free the Bayer Emergency Response Telephone No. 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>Note to Physician:</b> If ingested, induce emesis or lavage stomach. Treat symptomatically.	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

#### Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

#### Mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks, and
- Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber when mixing/loading, when using handheld equipment or handheld nozzles

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

See engineering controls for additional requirements.

**Engineering Control Statements**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators.

**User Safety Recommendations**

- Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to organisms in neighboring areas.

This product may contaminate water through runoff. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

**Groundwater Advisory:** This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not make applications when weather conditions favor drift from target area.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use, pour, spill, or store near heat or open flame.

**DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not enter or allow others to enter until sprays have dried. Do not enter or allow others to enter the treated area (except those involved in watering-in) until watering-in is complete and the surface is dry.

Do not use clippings for animal feed.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Harvesting or transplanting turfgrass grown on sodfarms is prohibited for 17 days following application.

**Exception:** If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant (such as nitrile or butyl  $\geq$  14 mils) gloves made of any waterproof material
- Shoes plus socks

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter until sprays have dried.

### PRODUCT INFORMATION

#### Mixing Procedures

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Agitation is necessary for proper dispersal of the product. Maintain agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

**Alone:** Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the TARTAN™ FUNGICIDE to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after TARTAN™ FUNGICIDE has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

**TARTAN™ FUNGICIDE+ Tank Mixtures:** Add 1/2 of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: (1) products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables); (2) liquid flowables, liquids; and (3) emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

**Note:** When using TARTAN™ FUNGICIDE in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using TARTAN™ FUNGICIDE in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations that appear on the tank mix product label. No label dosage rate should be exceeded, and the most restrictive label precautions and limitations should be followed. This product should not be mixed with any product that prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

TARTAN™ FUNGICIDE is compatible with most insecticide, fungicide, and foliar nutrient products. However, the compatibility of TARTAN™ FUNGICIDE with tank mix partners should be tested before use.

To determine biological compatibility with other products, mix the products in the desired proportions, spray on target plants and observe for phytotoxicity seven days after the application.

To determine the physical compatibility of TARTAN™ FUNGICIDE with other products, use a jar test, as described below. Using a quart jar, add the proportionate amounts of the products to 1 qt of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

Observe all directions, precautions, and limitations on labeling of all products used in tank mixes. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.

**Use with additives:** Use of spray additives is not required. Any spray additive should be evaluated prior to use. Do not use in conjunction with organosilicate-based products, or plant injury may occur. Label directions are based on data with no additives.

**Chemigation:** Do not apply this product through any type of irrigation system.

**Aerial Application:** Do not apply by aerial application in the State of New York. Aerial application to turfgrass is limited to sodfarm turf only.

#### **Spray Drift Requirements:**

1. For groundboom and aerial applications, use only medium or coarser spray nozzles according to ASABE (S572) definition for standard nozzles. Aerial applicators must consider flight speed and nozzle orientation in determining droplet size.
2. Make aerial or ground applications when the wind velocity is 3 to 10 mph. Do not apply when the wind speed is greater than 10 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.
3. Do not make aerial or ground applications into temperature inversions.
4. For groundboom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy.
5. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows.
6. For aerial applications, do not release spray at a height greater than 10 feet above the ground or plant canopy.
7. For aerial applications, the outermost nozzles must not exceed 60% of the wingspan or 80% of the rotor blade diameter.
8. When aerial applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

**Resistance Management:** TARTAN™ FUNGICIDE contains the strobilurin class of chemistry, which exhibits no known cross-resistance to other chemical classes including sterol inhibitors, dicarboximides, benzimidazoles, anilinopyrimidines, or phenylamides. However, certain fungal pathogens are known to develop resistance to products used repeatedly. Because resistance development cannot be predicted, the use of this product should conform to resistance management strategies. Such strategies may include rotating and/or tank mixing with products having different modes of action; or limiting the total number of applications per season. Bayer encourages responsible product stewardship to ensure effective long-term control of the fungal diseases on this label. See specific recommendations in the turf section and the ornamentals section.

#### **Maximum Use Rates**

For turfgrass, up to 345 fl oz of TARTAN™ FUNGICIDE can be applied per acre per year.

For turfgrass, maximum single application rate is 2.7 lb ai/A. (triadimefon)

#### **TURFGRASS DISEASE CONTROL**

TARTAN™ FUNGICIDE is a preventive and curative fungicide that may be applied to turf sites including golf courses, institutional and commercial lawns, sod farms, sports fields, parks, municipal grounds and cemeteries.

TARTAN™ FUNGICIDE is a broad spectrum fungicide for the control of dollar spot (*Sclerotinia homoeocarpa*), brown patch (*Rhizoctonia spp*), anthracnose (*Colletotrichum graminicola*), red thread (*Corticium fuciforme*), pink patch (*Limonomyces roseipellis*), Leaf spot (*Bipolaris spp.*, *Drechslera spp.*), gray leaf spot (*Pyricularia grisea*), rust (*Puccinia spp.*), pink snowmold (*Microdochium nivale*), fusarium patch (*Microdochium nivale*), southern blight (*Sclerotium rolfsii*), stripe smut (*Ustilago striiformis*), rapid blight and summer patch (*Magnaporthe poae*). When conditions are favorable for Pythium blight (*Pythium spp.*), mix a Pythium control fungicide with TARTAN.

1. FUNGICIDES SUCH AS TARTAN™ FUNGICIDE ARE BEST USED IN A PREVENTIVE DISEASE CONTROL PROGRAM. CURATIVE APPLICATIONS CAN BE MADE FOR CERTAIN DISEASES.
2. It is recommended to apply in 1-2 gals of water per 1,000 sq ft to ensure thorough coverage. For soil-borne diseases, use sufficient water to reach the crown and upper root zone.

3. Apply after mowing OR allow sprayed area to completely dry before mowing.
4. For control of both foliar and soil-borne diseases, allow sprayed area to completely dry before irrigation.
5. Under conditions optimum for high disease pressure, use the higher rate and the shorter interval.
6. For optimum turf quality and disease control, use TARTAN™ FUNGICIDE in conjunction with turf management practices that promote good health and optimum disease control.
7. Before use of any fungicide, proper diagnosis of the organism causing the disease is important. Use of diagnostic kits or other means of identification of the disease organism is essential to determine the best control measures.
8. Application to golf courses, including tees, greens, fairways, and roughs is permitted only if the turfgrass is 2.5 inches or less in height.

**Tank Mixes**

For more broad-spectrum control TARTAN™ FUNGICIDE can be tank mixed with other fungicides. Check compatibility before tank mixing.

TARTAN™ FUNGICIDE CAN BE APPLIED TO ALL MAJOR TURFGRASS SPECIES. RATES ARE DEPENDENT UPON DISEASE AND THE ORGANISM THAT IT IS INCITED BY.

**Resistance Management for Turfgrass**

Do not apply more than 2 sequential TARTAN™ FUNGICIDE applications for gray leaf spot control. Do not apply more than 3 sequential applications of TARTAN™ FUNGICIDE for all other diseases. Alternate with a fungicide having a different mode of action.

Turfgrass Diseases Controlled with TARTAN™ FUNGICIDE			
Disease	TARTAN™ FUNGICIDE	fl oz per 1,000 sq ft	Application Interval/ Timing
Dollar Spot	Apply when conditions are favorable for disease development.	1-2	14-28 days
Brown Patch	Apply when conditions are favorable for disease development.	1-2	14-28 days
Leaf Spot	Apply when conditions are favorable for disease development.	1	14 days
	For curative applications.	2	21-28 days
Anthracnose	Apply when conditions are favorable for disease development.	1-2	14-28 days
Summer Patch	Make initial application when the soil temperatures reach 65°F. Subsequent applications at 21-28 day interval. Do not make more than 3 sequential applications.	2	21-28 days
Gray Leaf Spot and Rapid Blight	Apply when conditions are favorable for disease development.	1-2	14-28 days
Red Thread, Pink Patch	Apply when conditions are favorable for disease development.	1-2	14-28 days
Rust	Apply when conditions are favorable for disease development.	1-2	14-28 days
Southern Blight	Preventive applications only	1-2	Repeat at 14-day intervals.
Stripe Smut	Make the first application in the spring just before the turf breaks dormancy followed by a second application just prior to the summer heat stress period and a third application when the cool nighttime temperatures of the late summer or early fall return.	1	3 applications/seas on Spring, Early Summer, and Early Fall
Fusarium Patch	Apply when conditions are favorable for disease development.	2	Fall-Early Spring
Pink Snow Mold	Apply one application in late fall before snow cover or early spring after snow melts. Do not apply on top of snow.	2	Late Fall

<p>Fairy ring (various fungi)</p>	<p>Preventive Application: The first application should be made winter/spring when 5-day average daily soil temperatures taken at 2 inches are 55 - 60°F. In sandy soils, average air temperature can also be an adequate measure. In areas, like southern Florida, where the soil temperatures do not get to 55-60°F, make the first application in mid to late January. Do not apply if day-time temperatures are above 80°F. Discontinue applications of plant growth regulators (PGR's) one week before and after the Tartan applications.</p> <ul style="list-style-type: none"> <li>• Apply using 2 gallons of spray per 1,000 square feet.</li> </ul>	<p>2</p>	<p>A second application is required, and apply it 28 days later.</p>
	<ul style="list-style-type: none"> <li>• Applications should be watered in with ½ to ¾ inch of irrigation within 24 hours</li> </ul> <p>Tank-mixing of wetting agents is not recommended with these preventive applications. Tank-mixing of wetting agents has resulted in a slight decrease in fungicide efficacy. Wetting agents should still be applied according to regular scheduling, preferably two weeks apart from the fungicide applications.</p>		

For preventive applications apply when conditions are favorable for disease. Use the higher rate/shorter interval for curative applications or under severe disease conditions.

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer Emergency Response Telephone No. is 1-800-334-7577.

**Pesticide Disposal:** Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

**Container Handling:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities.

**IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

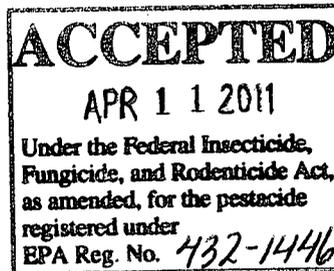
**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Net Contents : 2.5 gallons

TARTAN is a trademark of Bayer



PRODUCED FOR



**Bayer Environmental Science**

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